

### AMENDMENTS TO THE SPECIFICATION

Please amend section [0061] of the specification as indicated below with insertions underlined (e.g., insertion), and deletions struckthrough or in double brackets (e.g., ~~deletion~~ or ~~[[deletion]]~~):

**[0061]** FIG. 13A illustrates a wavelength compensation relationship 1300 having a look-up table 1310, wavelength-dependent calibration data 1320, and a wavelength determination function 1330. The wavelength compensation relationship 1300 advantageously changes sensor wavelength to generate a wavelength-compensated physiological measurement output 1308. The look-up table 1310 has a spectral characteristic input 1302 and generates a physiological measurement output 1308~~1318~~ utilizing the wavelength-dependent calibration data 1320. The wavelength determination function 1330 has parameter 1304~~1332~~ inputs and, in one embodiment, a feedback input of the physiological measurement 1308, and provides a sensor wavelength selection output 1338. The wavelength selection output 1338 provides a calibration data 1320 input for selecting wavelength-dependent portions of the calibration data 1320. As above, the look-up table 1310 and/or the calibration data 1320 may be replaced by or combined with mathematical formulas or algorithms. The wavelength control output 1338 is a feedback path to a controller 669 (FIG. 6) and/or drivers 662 (FIG. 6), for example, so as to modify the wavelength of a multiple-wavelength sensor 610 (FIG. 6). FIG. 13B, below, illustrates one advantageous pulse oximeter embodiment of the wavelength compensation relationship 1300.